

Water Consumption by actual and hypothetical uses

(Notes on next slide)

Name	Type of Plant	Acre-ft/yr	MMgal/day	Gal/MMBtu product
Colstrip 1-4	2094 MW PC	28,652	25.6	168
Dakota Gasification	170 MMcf/day (winter) synthetic natural gas	7,494	6.7	50
CTL plant (1:1 water: product)	11,000 bbl/day	414	0.4	7
CTL plant (7:1 water: product)	11,000 bbl/day	2,898	2.6	50
City of Helena	27,000 people	5,872	5.2	
Sugar beets	1,000 acres	1,830	1.6	
Alfalfa	1,000 acres	2,000	1.8	

Notes for water consumption

Name	Notes
Colstrip 1-4	2005: 575 gal/MWh
Dakota Gasification	2004; doesn't include water embodied in purchased electricity; doesn't assign any water consumption to co-products
CTL Plant (1:1 water: product)	Example; assumes all water use is assigned to liquid fuel product; capacity factor = .8
CTL Plant (7:1 water: product)	Example; assumes all water use is assigned to liquid fuel product; capacity factor = .8
City of Helena	2002-2005 average
Sugar Beets	Eastern Montana, optimal crop yields under efficient and scheduled irrigation (derived from NRCS est.)
Alfalfa	Eastern Montana; optimal crop yields under efficient and scheduled irrigation (derived from NRCS est.)